

Southwest Fisheries Center Administrative Report No. 15H, 1974

Experiences with Baitfish Transport Via Tanker-Trailer on Roll-On/Roll-Off  
Freighter

By

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The following abbreviated diary account of the baitfish transport project is offered as a discussion guide only. Unfortunately, the authors' day-to-day involvement in the project up to and including the time of the workshop, left no time for them to prepare a more detailed paper.

First Shipment

- April 1 5,000 gal. tanker-trailer shipped from Honolulu. Aasted accompanied. Water tests of system 400 gpm.
- April 6 Tank arrived Los Angeles. Start dock-side experiments.
- April 6-7 Simulating ship's sea water system at dock but only 100 gmp with pump we rented.
- April 8 (AM) Est. 550 lb. put in tank.  
(PM) 588 lb. dead (siphon-cleaning).
- April 9 242 lb. dead.
- April 10 238 lb. dead. Tank cleaned. Total 1,068 lb.
- April 11 Second dock experiment. Est. 350 lb. put in tank.
- April 13 5 lb. dead on top-screens. Have not yet siphoned for dead.
- April 14 Siphoned. 71 lb. dead.

SA 15 71 lb. dead.

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This is a draft report distributed for information only in connection with the Tuna Baitfish Workshop. It will not be published in the present form and should not be cited in the literature.

April 15 21 lb. dead.  
Four hours on closed system and 1/2 hour on stagnation. No apparent ill effects. Dumped load and weighed live fish. 179 lb. = 64% survival.

April 16 Third load of fish est. 550 lb. Destined for shipment.

April 17 40 lb. dead.

April 18 Left on Matsonia with Gooding at 1100 after all night delay at Matson Terminal. Removed 54 lb. dead from surface during crossing (no siphoning).

April 22 Arrived Honolulu. Made closed system transit to Kewalo Basin. Removed 51 lb. from bottom. Dropped water level and bucketed fish into 13,000 gal. holding tank (plastic pool). Total dead--145 lb. Should have 405 lb. left, but only 180 lb. est. remaining. Given to fishing boat 18 days later--no mortality in storage. Installed permanent bottom siphon for continuous cleaning.

#### Second Shipment

May 8 Tanker-trailer shipped from Honolulu.

May 12 Tanker-trailer arrived Long Beach.

May 13-14 Setting up at dock side. New pump delivers 360 gpm.

May 15 Est. 1,600 lb. loaded in tank at new loading location--closed system. Returned to Battelle dock and went on open system. 119 lb. dead (some alive).

May 16 Removed siphon arrangement and enlarged siphon intake slots. These were plugging up causing overflows. 308 lb. dead (some still living).

May 17 171 lb. dead (some still living).

May 18 368 lb. dead (some still living). Added 510 lb. (est.).

May 19 217 lb. dead (some still living). Put tanker with Gooding on Matsonia about 2:30 PM with minimal delays. 310 lb. lost in transit.

May 23 Tank arrived Honolulu--new Sand Island Terminal.  
Muddy water stirred up from bottom by tug. Distressed  
fish. Oxygen dropped from 6-4 ppm. Oxygen added.  
No mortalities from this. Transferred fish to storage  
tank--Kewalo. Estimated 500 lb. left. Should have had  
617 lb. based on original estimate.

May 25-27 Gave fish to two fishing boats.

May 28-June 3 Further modifications to vacuum-siphon system to reduce  
live fish loss.

Third shipment

June 3 Tanker-trailer shipped from Honolulu.